PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

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NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)

(PCΓ Rules 44bis.3(c) and 72.2)

KOHLER, SCHMID, MÖBUS

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ALLEMAGNE

am c 9.MRZ. 2006

Vorfrist/en

vorbereitet: \(\) not.:

Date of mailing (day/month/year)
02 March 2006 (02.03.2006)

Applicant's or agent's file reference
P8186PCT

International application No.
PCT/DE2004/000647

Applicant

BUSAK + SHAMBAN DEUTSCHLAND GMBH et al

l.	Transmittal	of the	translation	to	the ap	plicant
					P	P-22-0-22-

The International Bureau transmits herewith a copy of the English translation of the international preliminary report of
patentability (Chapter 1).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

Facsimile No.+41 22 338 89 75

PATENT COOPERATION TREATY

PCT

Translation INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference				
P8186PCT	FOR FURTHER ACTION	See Form PCT/IPEA/416		
nternational application No.	International filing date (day/month/year,	l l		
PCT/DE2004/000647	29.03.2004	31.03.2003		
nternational Patent Classification (IPC) or Applicant BUSAK + SHAMBAN DEU	UTSCHLAND GMBH			
This report is the international punder Article 35 and transmitted This REPORT consists of a total	to the applicant according to Article 36.	this International Preliminary Examining Authority		
3. This report is also accompanied	by ANNEXES, comprising:			
a. (sent to the applicant	t and to the International Bureau) a total of 🗵	sheets, as follows:		
sheets of the de sheets containin Instructions).	escription, claims and/or drawings which have ng rectifications authorized by this Authority (been amended and are the basis for this report and/or see Rule 70.16 and Section 607 of the Administrative		
sheets which su the disclosure i Box.	persede earlier sheets, but which this Authori in the international application as filed, as ind	ty considers contain an amendment that goes beyond licated in item 4 of Box No. I and the Supplemental		
b. (sent to the Internation	onal Bureau only) a total of (indicate type and	number of electronic carrier(s))		
d	j.			
containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).				
4. This report contains indications	relating to the following items:			
Box No. I Basis of	of the report			
Box No. II Priorit	v			
	stablishment of opinion with regard to novelty.	inventive step and industrial applicability		
$\overline{\Box}$	of unity of invention	•		
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
Box No. VI Certain documents cited				
Box No. VII Certai	in defects in the international application			
	in observations on the international application			
Date of submission of the demand	Date of completion			
Date of Submission of the definant	Suc of complete			
Name and mailing address of the IPEA/E	P Authorized office	er		
FaccionilaNo	Telephone No.			
Facsimile No.	Telephone No.			

International application No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

PCT/DE2004/000647

Box No. I		Basis of the report		
		to the language , this report is based on the internation der this item.	al application in the language in v	which it was filed, unless otherwise
	which	eport is based on translations from the original language is the language of a translation furnished for the purponternational search (Rule 12.3 and 23.1(b))		
		publication of the international application (Rule 12.4))	
		international preliminary examination (Rule 55.2 and/	or 55.3)	
recei	ving Oj eport):	to the elements of the international application, this in fice in response to an invitation under Article 14 are error error application as originally filed/furnished	report is based on (replacement si referred to in this report as "or	heets which have been furnished to the iginally filed" and are not annexed to
\boxtimes	the de	scription:		
	pages	1-9		as originally filed/furnished
	pages	*	received by this Authority on	
	pages'			
\boxtimes	the cla	nims:		•
الحب	nos.			as originally filed/furnished
			as amended (togethe	
	nos.*			28.01.2005 with the
	nos.*			
	nos.*		received by this Additionly on	
	the dr	awings:		
	sheets	1/1		as originally filed/furnished
	sheets	*	received by this Authority on	
	sheets	*	received by this Authority on	
	a sequ	uence listing and/or any related table(s) - see Supplen	nental Box Relating to Sequence I	isting.
3.	The a	mendments have resulted in the cancellation of:		
		the description, pages		
		the claims, nos.		
		the drawings, sheets/figs		
		the sequence listing (specify):		
ļ		any table(s) related to sequence listing (specify):		——————————————————————————————————————
4.	This they	report has been established as if (some of) the amen have been considered to go beyond the disclosure as f	dinents annexed to this report and liled, as indicated in the Suppleme	d listed below had not been made, since ental Box (Rule 70.2(c)).
		the description, pages		
		the claims, nos.		
		the drawings, sheets/figs		
1		the sequence listing (specify):		
*_ If it	 tem 4 a	pplies, some or all of those sheets may be marked "su		

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International application No.
PCT/DE2004/000647

			icle 35(2) with regard to novelty, inventive step or industrial applicabili porting such statement	ty;	
1.	Statement				
	Novelty	(N)	Claims	1-8	YES
			Claims		NO
Inventive step (IS)		Claims	1-8	YES	
			Claims		NO
	lndustria	al applicability (IA)	Claims	1-8	YES
			Claims		NO

- 2. Citations and explanations (Rule 70.7)
 - Document EP-A-1 162 394 (D1), which is regarded as the closest prior art, discloses a sealing arrangement for hydraulic pistons or piston rods, comprising a grooved ring (10) made from a toughresilient plastic (claims 14 - 16), a stationary machine part (14) and a movable machine part (34) with an outer radius (D_L) , the grooved ring (10)being arranged with radial pre-tensioning in a profiled section of the stationary machine part (14) to act as a contacting seal between the stationary machine part (14) and the movable machine part (34), the grooved ring having on the high-pressure side a radially outer and a radially inner sealing lip (66 and 20, 22), the stationary and the movable machine parts (14, 34) being distanced on the low-pressure side by a sealing gap (figure 6) with a sealing gap width that is not specified in detail, a contact surface (12) of the grooved ring (10) on the low-pressure side fitting against a radially oriented portion (figure 6) of the profiled section, the grooved ring (10, 18) having an inner and an outer radius, the inner radius of the grooved ring (10, 18) in

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Box No. V
Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

the area of the contact surface (12) being greater than the sum of D_L and the sealing gap in both the pressure-less and the pressurised states (see figure 6).

- 2. The problem addressed by the invention is specified in the first paragraph on page 3 of the description.
- 3. The solution to the problem as per the characterising part of claim 1 consists in providing lubrication pockets in the form of recesses on the inner side facing the moving machine element, said recesses extending axially from the low-pressure side. The requirements of PCT Article 33(2) and (3) thus appear to be satisfied, since this combination of features is neither disclosed nor suggested by document D1, even in combination with the other documents listed in the search report.

Claims 2-8

- 4. The remaining claims are dependent on claim 1 and essentially define the technical configuration and alternative embodiments. Those claims therefore also appear to meet the requirements of PCT Article 33(2) and (3).
- 5. Industrial applicability is obvious.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

The following defects in the form or contents of the international application have been noted:

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Box No. VII Certain defects in the international application

Pursuant to PCT Rule 5.1(a)(ii), the description should cite document D1; the relevant prior art contained therein should be briefly outlined.